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T3: Tanks, Tips, and Trends . . .

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"Dedicated to being the trusted supplier of Bolted Stainless Steel Storage Tanks."

"Black Balled" - LA Tries Spherical Evaporation Reduction Scheme

Since 2008, Los Angeles, CA officials have been implementing a surprisingly low-tech way to fight the region's water crisis: millions of floating plastic balls. For the past seven years, the city's Department of Water and Power (DWP) has released nearly 100 million of the so -called "shade balls" into three Los Angeles reservoirs, with the final 20,000 balls released in recent months to widely released media coverage.

In theory, the layer of balls are supposed to protect the reservoir water from algae formation, dust, rain, and wildlife. The balls are coated in chemicals to block UV light, are not degradable, and are designed to last up to 25 years. More importantly, the black balls are being hyped as a method of reducing evaporation.

According to Los Angeles Mayor Eric Garcetti, the balls could conserve 300 million gallons of reservoir water **each year**. Sounds great, right? Additionally, the EPA mandates that all reservoirs be covered, but because tarps can be expensive and metal coverings can take too long to install, shade balls — at least in Los Angeles — are being lauded as a preferred method.

On a chemical level, the balls prevent the production of bromate, a suspected carcinogen. Bromate forms when naturally occurring bromite reacts with added chlorine and sunlight. The shade balls will likely become a permanent fixture atop reservoirs. This particular batch will be deployed for decade, after which time they will be removed, recycled, and replaced.

According to LADWP, the balls will save an estimated $250 million compared to other initiatives designed to have the same effect, such as installing two floating covers or dividing the reservoir in half with a bisecting dam, which could have cost more than $300 million. Theoretically, the shade balls – which cost just $0.36 each – will not require further labor or maintenance, aside from occasional rotation.

L.A politicians are applauding the move as an innovative approach in combating California's record-breaking drought of recent years.

However, not everyone is so enthusiastic. Nathan Krekula, biologist and operations manager at Wisconsin Diagnostic Laboratory, warned, "I don't believe that in the long run this provides a good strategy in protecting the water. I believe that this will increase evaporations due to a greater surface area as well as providing a great place for bacteria to have a nice environment to grow protected from UV light that kills it. In addition, Krekula felt that, "This system will require greater levels of water treatment that in the long run will require more money to ensure public safety."

To be sure, these shade balls may prevent some water evaporation. But the 300 million gallons **a year** these plastic balls are supposed to save is really a drop in the bucket, especially when compared to the amount of water used by industry and agriculture. Fracking alone uses 2.14 million gallons of fresh water in California **EVERY DAY.**

If the agriculture industry cut its water use by only 5 percent, that would save 500 billion gallons of water **in a matter of months**. But, instead of large cuts and dealing with the root of the problem — they came up with shade balls. The question is, will it be worth the cost? 300 million gallons of water currently has a market value of about $2,000,000.00. The total cost of the "shade balls" project? Well, that's 96 million balls times $0.36 each = $34,560,000.00. Hmmmmm. There **is** the calculated "savings" of a the earlier mentioned floating covers or a bisecting dam, but frankly, the numbers don't really add up . . .

The state of California has been hard hit with a catastrophic drought for more than four years.

California Tries Low-Tech Method to Combat Drought ~Page 1~

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In January of 2014, Gov. Jerry Brown declared the water crisis a state of emergency. The period from 2011 and 2014 marks the driest since record-keeping began in 1895.

"Shade balls" may be a small step in the right direction towards better water conservation efforts in California. But clearly, stronger, more wide-spread measures need to be implemented in order to combat California's growing thirst for water, drought or no.

Source: http://www.discovery.com/dscovrd/tech/millions-of-shade-balls-to-prevent-evaporation-in-california-reservoirs/

http://www.npr.org/sections/thetwo-way/2015/08/11/431670483/la-rolls-out-water-saving-shade-balls

http://www.foxnews.com/us/2015/08/12/black-balled-la-tries-spherical-scheme-to-block-evaporation-amid-drought/

http://grist.org/article/why-shade-balls-arent-such-a-great-idea-after-all/

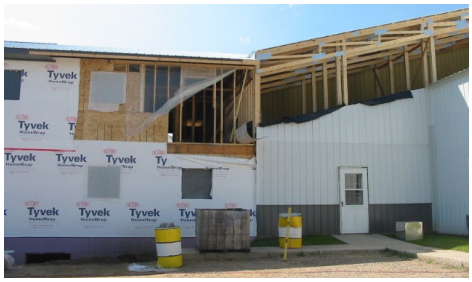
American Structures, Inc. Expansion Efforts Proceeding Towards Completion

In sprite of very wet conditions in the months of July and August, the new expansion construction projects at American Structures, Inc. are well underway.

The shop expansion is entirely enclosed and finish work is proceed well. With the delivery of our new precision laser machine, as well as electrical and plumbing stages nearing completion, it won't be long before this phase of our expansion project is completed.

Work on the Administrative expansion side of the project has made excellent progress, in spite of heavy rainfalls making heavy work of excavation and framing efforts. As you can see from the photo above, right, the sidewalls, roof, and moisture barrier for the structure have

completed. Work on tying in the new roof line to the existing building is nearing an end.



Once this phase of the project is completed, we expect to be able to fully enclose the new addition through the installation of windows and doors. Once the addition is weatherproof, work on the interior components (sheetrock, electrical wiring, and plumbing) will commence.

The new Administrative addition will provide three levels of storage, department offices, a large reception area, a conference room, and breakroom, as well as and a handicap-accessible entranceway and bathrooms. This will provide for a more centralized administrative and departmental space, as well as offer easier access and comfort for both our customers, as well as our employees.

Given the wet summer we have experienced this year, we are still farther ahead with this construction expansion than feared. Our in-house construction crew is to be commended on the excellent progress they have made on this extensive project this far. Everyone is eagerly awaiting completion of construction and move-in to the new spaces.

We'll keep our progress you posted as we go!

Did You Know . . .

Throughout the year, American Structures, Inc. staff attend between 10 and 12 industry tradeshows and expos.

From regional Rural Water Association shows throughout the Mid-West to national industry events, our staff travels to and attends industry events throughout the year across the nation.

While most our of trade events take place in the first three to four months of the year, we attend events until the middle of October. As we near the last quarter of the year, we'll be traveling to Chicago, Illinois to attend the Water Environment Federation's Annual Technology and Exposition event—WEFTEC® 2015.

WEFTEC® is the biggest event of its kind in North America and offers thousands of water quality professionals from around the world the best water quality education and training available today. Also recognized as the world's largest annual water quality exhibition, WEFTEC's massive show floor provides unparalleled access to the industry's most cutting-edge technologies and services.

WEFTEC 2014, held in New Orleans, set records for both attendance and exhibitions with over 22,000 attendees and nearly 1,000 exhibitors. Estimates for WEFTEC 2015 are expected to met or exceed those numbers.

American Structures, Inc. is looking forward to the opportunity to met with both new and past customers, learn new industry trends, and research water technology and products that will enhance our services. Our staff will be attending this year from September 27– 30th and our exhibition will be located in **Booth #4978**. If you're in the Chicago area or attending the expo, stop on by and see us. We look forward to seeing you!